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AMENDMENTS TO THE SPECIFICATION

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Please replace paragraph [0006], with the following new paragraph [0006]:

[0006] One aspect of the present invention relates to a siloxane-based resin that is prepared by hydrolyzing and condensing a silane-based monomer having a radial structure of Formula 1 and at least one monomer selected from the group consisting of the compounds of Formulas 2 to 4, in organic solvent in the presence of an acid or alkaline catalyst and water:

Formula 1

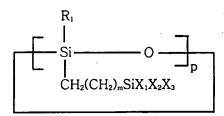
Si[(CH₂)_kSiY₁Y₂Y₃]₄

wherein,

k is an integer of 1-10; and

 Y_1 , Y_2 and Y_3 are independently a C_1 - C_3 alkyl group, a C_1 - C_{10} alkoxy group, or a halogen atom, provided that at least one of them is hydrolysable,

Formula 2



wherein,

 R_1 is a C_1 - C_3 alkyl group, or a C_6 - C_{15} aryl group;

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 X_1 , X_2 and X_3 are independently a hydrogen atom, a C_1 - C_3 alkyl group,

a C₁-C₁₀ alkoxy group, or a halogen atom, provided that at least one of them is

hydrolyzable;

m is an integer of 0-10; and

p is an integer of 3-8,

Formula 3

wherein,

R₂ is a C₁-C₃ alkyl group, or a C₆-C₁₅ aryl group;

X₄ is a hydrogen atom, or a C₁-C₁₀ alkoxy group;

 Y_1 is a hydrogen atom, a C_1 - C_3 alkyl group or a C_1 - C_{10} alkoxy group; and

n is an integer of 0-10, and

Formula 4

 $R_3Si(X_5X_6X_7)_3$ $R_3SiX_5X_6X_7$

wherein,

 R_3 is a C_1 - C_3 alkyl group, or a C_6 - C_{15} aryl group;

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X₅, X₆ and X₇ are independently a hydrogen atom, a C₁-C₃ alkyl group, a

C₁-C₁₀ alkoxy group, or a halogen atom, provided that at least one of them is

hydrolyzable.

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Please replace paragraph [0012], with the following new paragraph

[0012]:

[0012] According to the present invention, the combined use of a

porogen with the inventive siloxane-based resin may further lower the

dielectric constant of the final insulating film down to 2.50 or less. The

present invention is represented by:

Formula 1

 $Si[(CH_2)_kSiY_1Y_2Y_3]_4$

wherein,

k is an integer of 1-10; and

 Y_1 , Y_2 and Y_3 are independently a C_1 - C_3 alkyl group, a C_1 - C_{10} alkoxy

group, or a halogen atom, provided that at least one of them is hydrolyzable.

Formula 2

$$\begin{array}{c|c}
R_1 \\
\hline
Si \\
CH_2(CH_2)_mSiX_1X_2X_3
\end{array}$$

wherein,

 R_1 is a C_1 - C_3 alkyl group, or a C_6 - C_{15} aryl group;

 X_1 , X_2 and X_3 are independently a hydrogen atom, a C_1 - C_3 alkyl group, a C_1 - C_{10} alkoxy group, or a halogen atom, provided that at least one of them is hydrolyzable;

m is an integer of 0-10; and p is an integer of 3-8.

Formula 3

$$X_{4} - S_{1}^{R_{2}} - O = \begin{bmatrix} R_{2} \\ I \\ S_{1} - O \\ I \\ R_{2} \end{bmatrix} \begin{bmatrix} R_{2} \\ I \\ S_{1} - X_{4} \\ I \\ Y_{1} \end{bmatrix}$$

wherein,

R₂ is a C₁-C₃ alkyl group, or a C₆-C₁₅ aryl group;

X₄ is a hydrogen atom, or a C₁-C₁₀ alkoxy group;

 Y_1 is a hydrogen atom, a C_1 - C_3 alkyl group or a C_1 - C_{10} alkoxy group; and

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n is an integer of 0-10, and

Formula 4

 $R_3Si(X_5X_6X_7)_3 R_3SiX_5X_6X_7$

wherein,

R₃ is a C₁-C₃ alkyl group, or a C₆-C₁₅ aryl group;

 X_5 , X_6 and X_7 are independently a hydrogen atom, a C_1 - C_3 alkyl group, a C_1 - C_{10} alkoxy group, or a halogen atom, provided that at least one of them is hydrolyzable.